

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/781,862

Attorney Docket No.: Q80021

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A polymerizable composition comprising:

- (A) a compound which causes at least one of decarboxylation and dehydration by heat;
- (B) a radical initiator;
- (C) a compound having at least one ethylenically unsaturated bond; and
- (D) an infrared ray absorber,

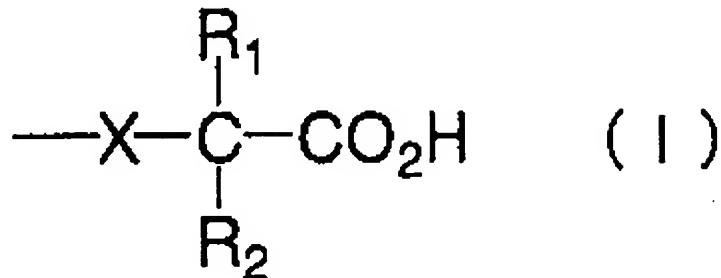
wherein the compound (A) and the radical initiator (B) are separate and distinct compounds from each other.

2. (original): The polymerizable composition according to claim 1, wherein the compound (A) is one which causes at least one of decarboxylation and dehydration at a temperature of 100°C to 300°C.

3. (original): The polymerizable composition according to claim 1, wherein the compound (A) is one having a structure capable of forming a 4 to 6-membered lactone ring, a 4 to 6-membered lactam ring or a 4 to 6-membered cyclic acid anhydride.

4. (original): The polymerizable composition according to claim 1, wherein the compound (A) is one having at least one group represented by the following formula (I):

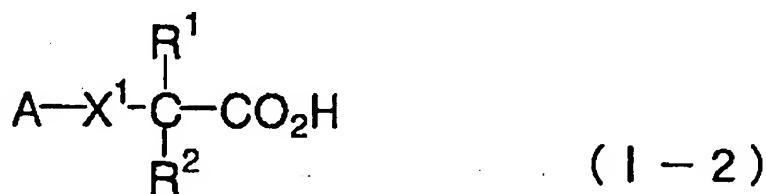
AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/781,862
Attorney Docket No.: Q80021



wherein:

X represents a divalent connection group selected from -O-, -S-, -SO₂-, -NH-, -N(R³)-, and -CO-,
R³ represents a hydrogen atom or a monovalent substituent,
R¹ and R² each independently represents a hydrogen atom or a monovalent substituent, provided that R¹ and R², or either one of R¹ and R² and R³ may be taken together to form a ring structure.

5. (original): The polymerizable composition according to claim 1, wherein the compound (A) is a monocarboxylic acid compound represented by the following formula (I-2):



wherein

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/781,862

Attorney Docket No.: Q80021

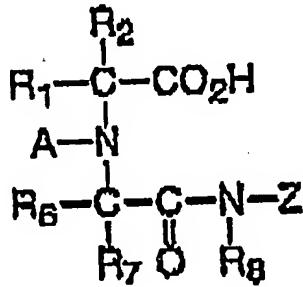
A represents an aromatic group or a heterocyclic group,

R¹ and R² each independently represents a hydrogen atom or a monovalent substituent, provided that R¹ and R², either one of R¹ and R² and X¹, either one of R¹ and R² and A, or A and X¹ may be taken together to form a ring structure,

X¹ represents a divalent connection group selected from -O-, -S-, -SO₂-, -NH-, -N(R³)-, -CH₂-, -CH(R⁴)-, and -C(R⁴)(R⁵)-, and

R³, R⁴, and R⁵ each independently represents a hydrogen atom or a monovalent substituent.

6. (original): The polymerizable composition according to claim 1, wherein the compound (A) is a compound represented by the following formula:



wherein

A represents an aromatic group or a heterocyclic group,

R¹, R², R⁶, R⁷ and R⁸ each independently represents a hydrogen atom or a monovalent substituent, provided that R¹ and R², either one of R¹ and R² and A, or R⁸ and Z may be taken together to form a ring structure,

and

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/781,862

Attorney Docket No.: Q80021

Z represents a monovalent substituent.

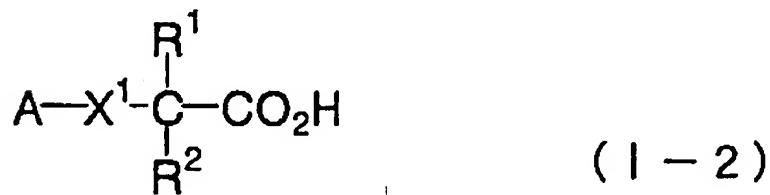
7. (original): A polymerizable composition comprising:

(A-1) a monocarboxylic acid compound represented by the following formula (I-2);

(B) a radical initiator;

(C) a compound having at least one ethylenically unsaturated bond; and

(D) an infrared ray absorber:



wherein

A represents an aromatic group or a heterocyclic group,

R¹ and R² each independently represents a hydrogen atom or a monovalent substituent, provided that R¹ and R², either one of R¹ and R² and X¹, either one of R¹ and R² and A, or A and X¹ may be taken together to form a ring structure,

X¹ represents a divalent connection group selected from -O-, -S-, -SO₂-, -NH-, -N(R³)-, -CH₂-, -CH(R⁴)-, and -C(R⁴)(R⁵)-, and

R³, R⁴, and R⁵ each independently represents a hydrogen atom or a monovalent substituent.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/781,862
Attorney Docket No.: Q80021

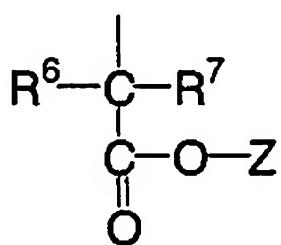
8. (original): The polymerizable composition according to claim 7, wherein X¹ in the formula (I-2) is a divalent connection group selected from -NH-, -N(R³)-, -CH₂-, -CH(R⁴)-, and -C(R⁴)(R⁵)-.

9. (original): The polymerizable composition according to claim 7, wherein X¹ in the formula (I-2) is a divalent connection group selected from -NH- and -N(R³)-.

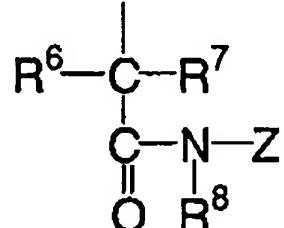
10. (original): The polymerizable composition according to claim 7, wherein X¹ in the formula (I-2) is -N(R³)-.

11. (original): The polymerizable composition according to claim 7, wherein the substituent represented by R³ contains at least one of -CO₂- and -CON(R⁸)- in its structure in which R⁸ represents a hydrogen atom or a monovalent substituent.

12. (original): The polymerizable composition according to claim 7, wherein the substituent represented by R³ is represented by one of the following formulae (i) and (ii):



(i)



(ii)

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/781,862

Attorney Docket No.: Q80021

wherein, R⁶, R⁷ and R⁸ each independently represents a hydrogen atom or a monovalent substituent, Z represents a monovalent substituent, and R⁸ and Z may be taken together to form a ring structure.

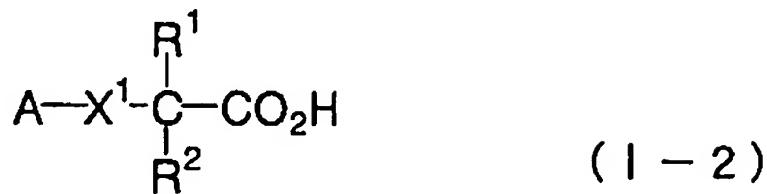
13. (original): The polymerizable composition according to claim 7, wherein the monovalent substituent represented by R¹ and R² is a halogen atom, an optionally substituted amino group, an alkoxy carbonyl group, a hydroxyl group, an ether group, a thiol group, a thioether group, a silyl group, a nitro group, a cyano group, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl group, or an optionally substituted heterocyclic group.

14. (currently amended): A lithographic printing plate precursor comprising a support and a recording layer containing a polymerizable composition which comprises: (A) a compound which causes at least one of decarboxylation and dehydration by heat; (B) a radical initiator; (C) a compound having at least one ethylenically unsaturated bond; and (D) an infrared ray absorber,

wherein the compound (A) and the radical initiator (B) are separate and distinct compounds from each other.

15. (original): A lithographic printing plate precursor comprising a support and a recording layer containing a polymerizable composition which comprises: (A-1) a monocarboxylic acid compound represented by the following formula (I-2); (B) a radical initiator; (C) a compound having at least one ethylenically unsaturated bond; and (D) an infrared ray absorber:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/781,862
Attorney Docket No.: Q80021



wherein

A represents an aromatic group or a heterocyclic group,

R¹ and R² each independently represents a hydrogen atom or a monovalent substituent, provided that R¹ and R², either one of R¹ and R² and X¹, either one of R¹ and R² and A, or A and X¹ may be taken together to form a ring structure,

X¹ represents a divalent connection group selected from -O-, -S-, -SO₂-, -NH-, -N(R³)-, -CH₂- , -CH(R⁴)-, and -C(R⁴)(R⁵)-, and

R³, R⁴, and R⁵ each independently represents a hydrogen atom or a monovalent substituent.

16. (new): The polymerizable composition according to claim 1, wherein the compound (A) has a -CO₂H group.

17. (new): The polymerizable composition according to claim 14, wherein the compound (A) has a -CO₂H group.